

NOW I'M A BIT
ANGRY!

Individuals' Awareness, Perception, and Responses to Data Breaches that Affected Them

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* The first two authors contributed equally to this research

Problem

- Data breaches are on the rise
- U.S. alone more than 1000 breaches/year

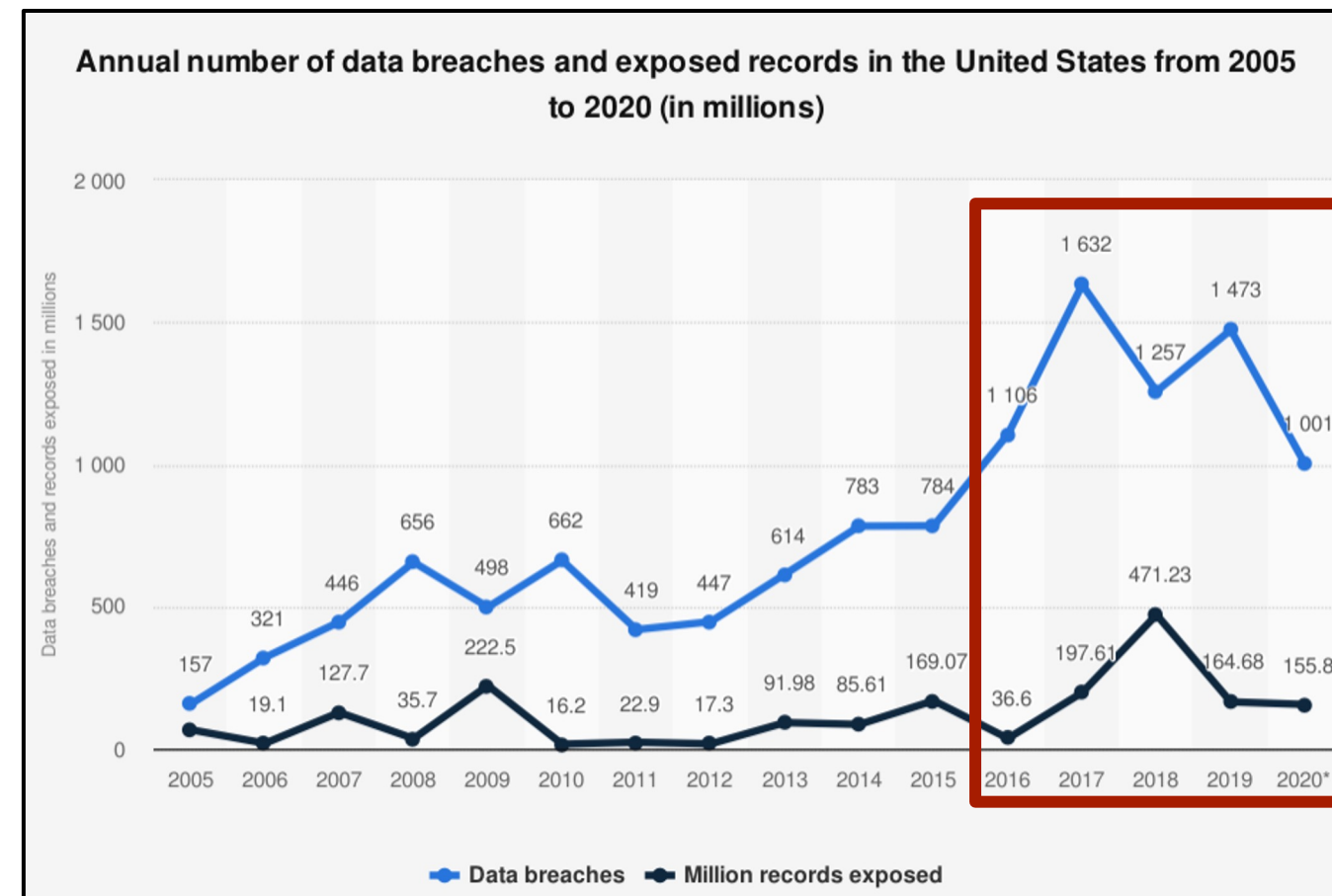


Image source: Statista, Image source: Statista

Methodology

- Online study (participants n=413; US-based; recruited via Prolific)
- Saw up to three breaches that affected them
- Based on haveibeenpwned.com data
- High ecological validity

Breach 1 of 2

Your email address was part of the following breach

Kickstarter (kickstarter.com)

In February 2014, the crowdfunding platform **Kickstarter** announced they'd suffered a data breach. The breach contained almost 5.2 million unique email addresses, usernames and salted SHA1 hashes of passwords.

Compromised data: Email addresses, Passwords

Prior to this study, have you been aware that you were affected by this breach?

☐ Yes

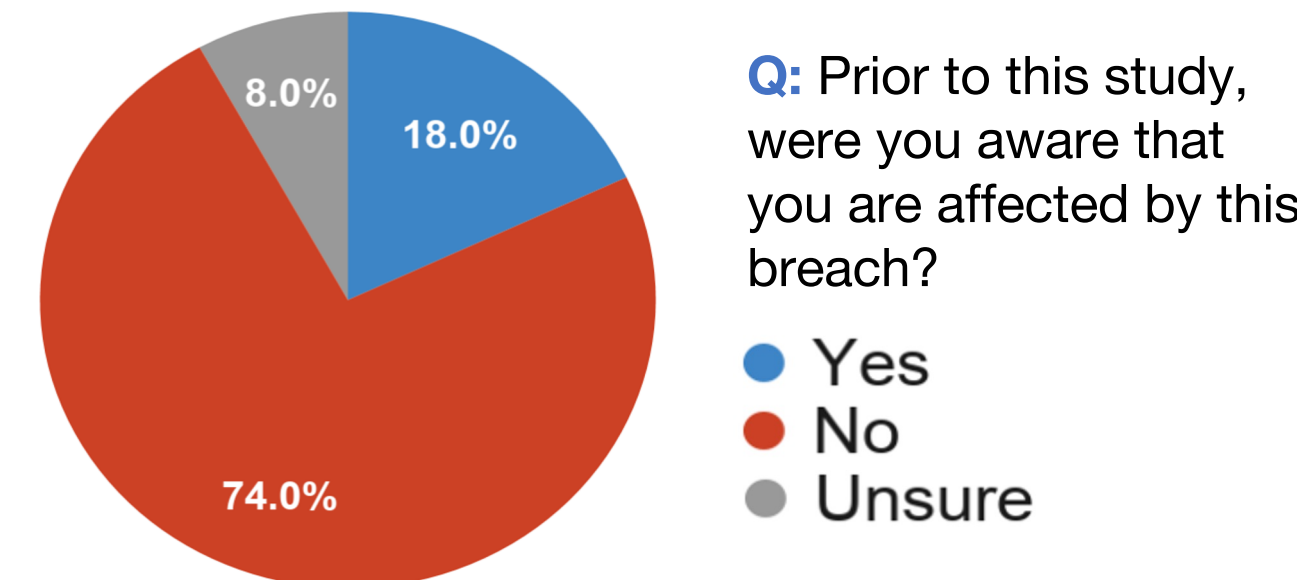
☐ No

☐ Unsure

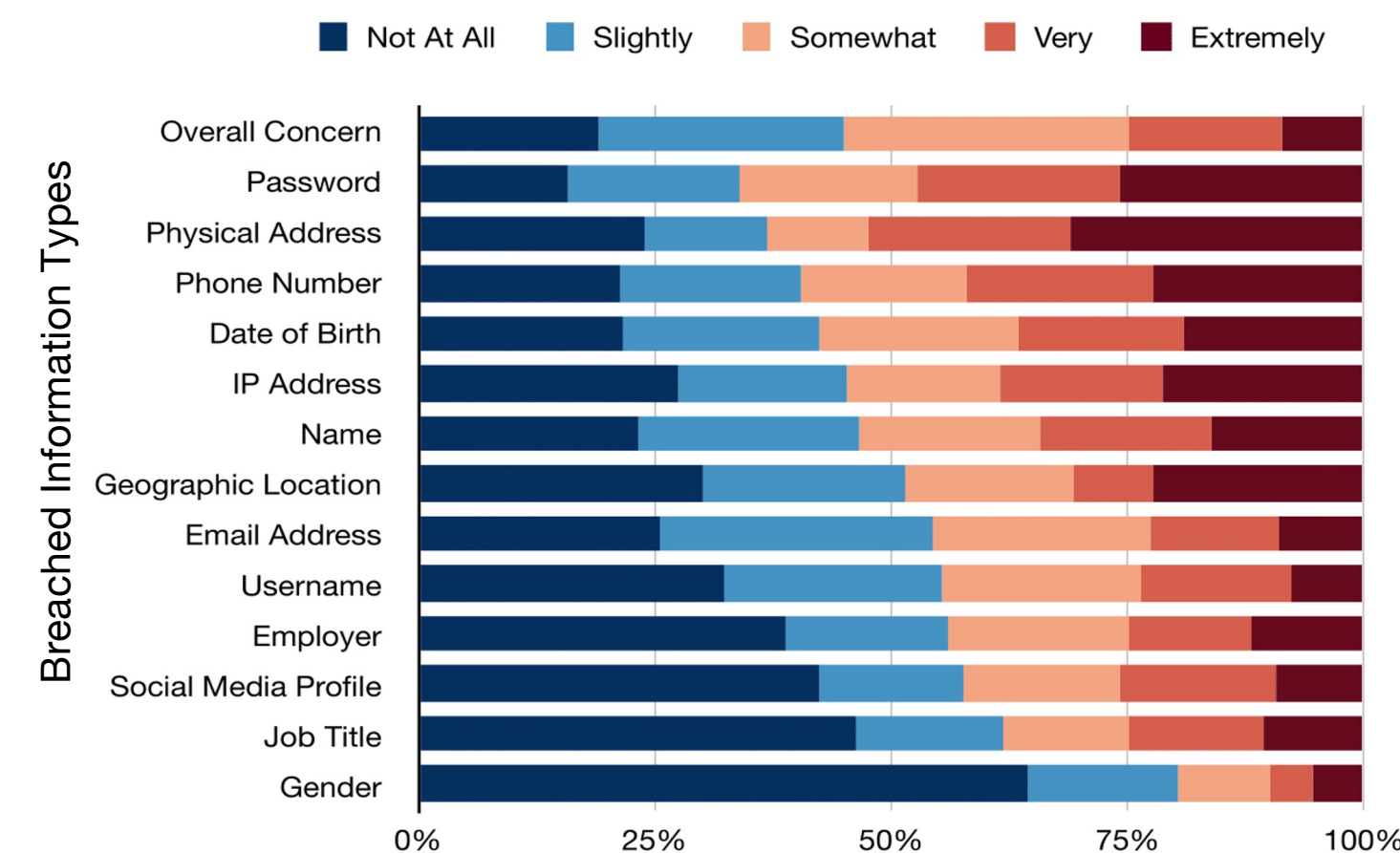
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Key Findings

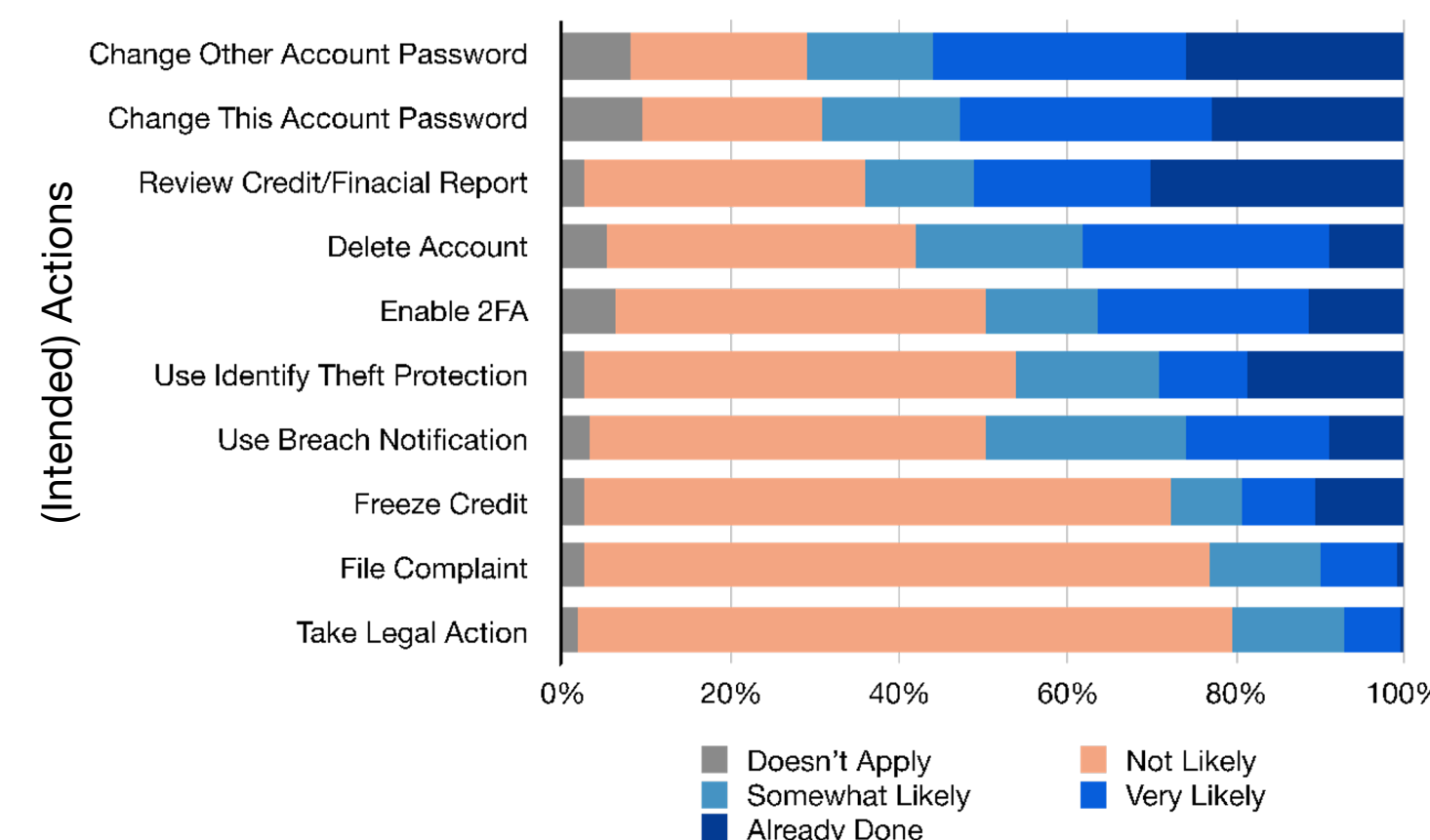
- Participants **unaware** of most breaches



- Low **concern** on average



- Varied levels of intention and adoption for different **actions**



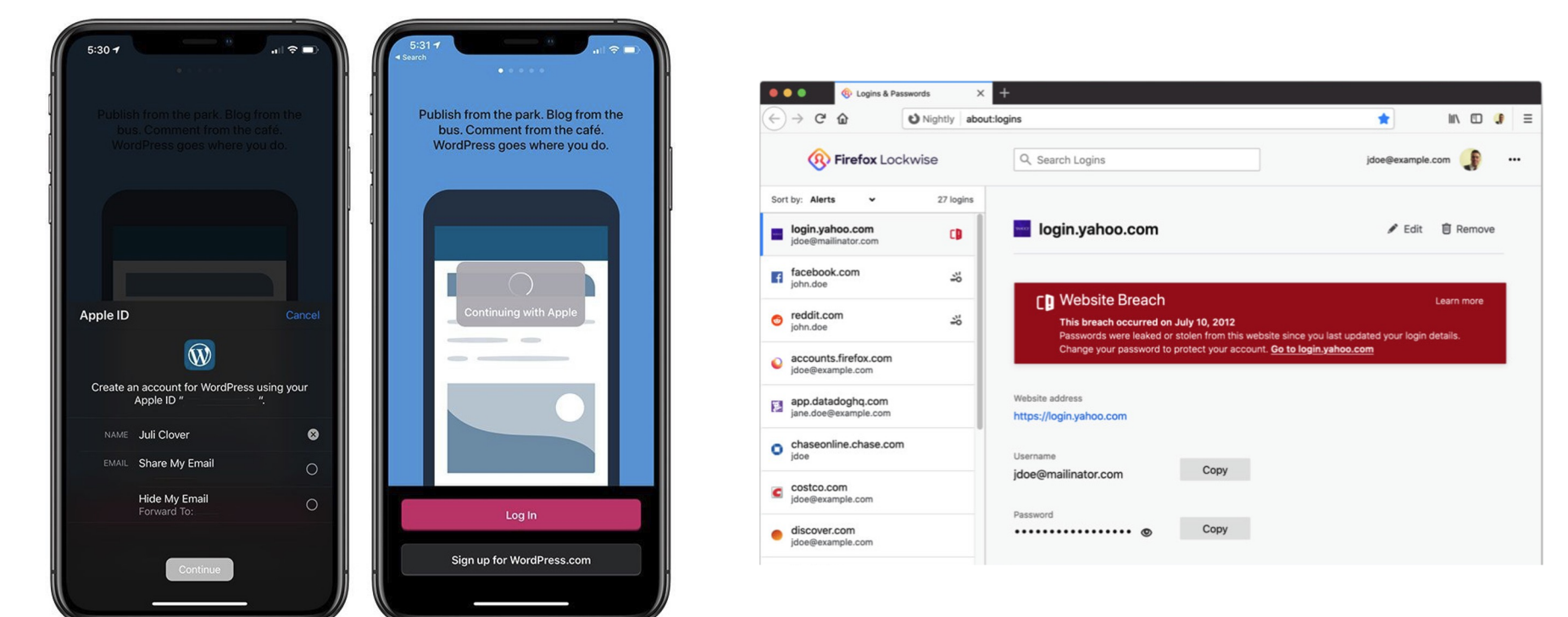
- Awareness and concern are significantly correlated with higher likelihoods of having taken action.

Further Findings

- 73% participants had one or more breaches
- 5.4 breaches on average per participant
- Most common leaked data types:
 - Password (86%)
 - Username (58%)
 - IP Address (43%)
 - Name (39%)
- Perceived causes of being affected:
 - Own email practices (53%)
 - Insecure behaviors (10%)
 - External attribution (14%)
- Perceived impact of being affected: none (43%), very little (11%)

Recommendations

- Promote tools creating single-use email aliases
- Strengthen breach notification requirements
 - Innovative notification methods
 - Understandable, usable, & actionable notices
- Companies must be more involved in helping consumers recover from breaches



Poster based on original research paper:

"Now I'm a bit angry:" Individuals' Awareness, Perception, and Responses to Data Breaches that Affected Them.

Peter Mayer, Yixin Zou, Florian Schaub, & Adam J. Aviv.

30th USENIX Security Symposium (USENIX Security '21).

Link to full paper



More questions, comments, or feedback? Feel free to contact us:
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